Safety Attribute Inspection (SAI) Data Collection Tool 5.1.8 Extended Range Operations with Two-Engine Airplanes (ETOPS) (OP)

ELEMENT SUMMARY INFORMATION

Purpose of this Element (certificate holder's responsibility):

• To ensure that the certificate holder provides safe and reliable operations in accordance with their approved ETOPS authorization.

Objective (FAA oversight):

- To determine if the certificate holder's Extended Range Operations with Two-Engine Airplanes (ETOPS) program meets all applicable requirements of Title 14 of the Code of the Federal Regulations(14 CFR) and FAA policies.
- To determine if the certificate holder's ETOPS program incorporates the safety attributes.
- To identify any shortfalls in the certificate holder's ETOPS program.

Specific Instructions:

 There are no specific regulatory requirements for ETOPS. ETOPS authorization is a deviation from 14 CFR 121.161(a). (Airplane limitations: Type of route)

SUPPLEMENTAL INFORMATION

Specific Regulatory Requirements (SRRs):

- SRRs:
 - 119.33(a)(1)
 - 119.33(a)(2)
 - 119.33(a)(3)
 - 119.43(b)
 - 119.43(b)(1)
 - 119.43(b)(2)
 - 119.43(c)
 - 119.49
 - 119.49(a)
 - 119.49(b)
 - 119.5(f)(1)
 - 119.5(f)(2)
 - 121.135(a)(1)
 - 121.135(b)(1)
 - 121.135(b)(19)
 - 121.135(b)(2)
 - 121.135(b)(21)
 - 121.135(b)(3)
 - 121.135(b)(5)
 - 121.135(b)(6)
 - 121.135(b)(7)
 - 121.161(a)
 - 121.383(a)(1)
 - 121.383(a)(2)
 - 121.383(a)(3)

SRRs:

B.042

C.055

D.086

Related CFRs & FAA Policy/Guidance:

Related CFRs:

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• FAA Policy/Guidance:

FAA Order 8400.10, Volume 3, Chapter 1 FAA Order 8400.10, Volume 3, Chapter 3 FAA Order 8400.10, Volume 4, Chapter 1 Advisory Circular 120-42A

SAI SECTION 1 - PROCEDURES ATTRIBUTE

Objective: Procedures, instructions, and information contained in the certificate holder's manual are documented methods for accomplishing a process. Policies contained in the certificate holder's manual should establish the certificate holder's compliance posture. Policies may not be stand-alone statements but may be embedded within procedures, instructions, or information regarding a particular regulatory requirement. The questions in this section of the data collection tool (DCT) are designed to assist the inspector in determining if the certificate holder's manual has documented or prescribed methods of accomplishing the process requirements that provide answers to the associated questions regarding who, what, when, where, and how. This section contains policy questions, procedural questions and instructional or informational questions pertaining to various types of certificate holder requirements such as actions, prohibitions, or resources (i.e., personnel, facilities, equipment, technical data, etc.).

Tasl	Tasks		
	To meet this objective, the inspector must accomplish the following tasks:		
1.	Review the information listed in the Supplemental Information section of this DCT.		
2.	Review the duties and responsibilities for management and other personnel identified by the certificate holder who accomplish the Extended Range Operations with Two-Engine Airplanes (ETOPS) program.		
3.	Review the certificate holder's manual to ensure that it contains policies, procedures, instructions, and information necessary for the ETOPS program.		

Questions			
	To mee	et this objective, the inspector must answer the following questions:	
1.		ne content of the certificate holder's manual meet the specific regulatory A policy requirements for an ETOPS program:	
1.1.	excerp	ne certificate holder's manual contain the required references to, or ts from, Operations Specifications, paragraph B042, C055, D086? 119.43(b); 119.49; B.042; C.055; D.086	☐ Yes ☐ No, Explain
		d Design JTIs:	
	1.	Check that the Certificate Holder has operations specifications for conducting flag ETOPS.	
		Sources: 119.49(a)	
		Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)	
	2.	Check that the Certificate Holder has operations specifications for conducting flag operations for each kind of ETOPS authorized.	
		Sources: 119.49(a)(5)	
		Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)	
	3.	Check that the Certificate Holder has operations specifications for conducting flag operations containing authorization for ETOPS routes.	
		Sources: 119.49(a)(6)	
		Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)	
	4.	Check that the Certificate Holder has operations specifications for conducting flag operations that specify limitations for ETOPS areas.	
		Sources: 119.49(a)(6)	
	5.	Check that the Certificate Holder has operations specifications for	

		conducting flag operations specifying limitations for ETOPS routes. Sources: 119.49(a)(6)	
	6.	Check that the Certificate Holder has operations specifications for conducting flag operations specifying limitations for ETOPS areas. Sources: 119.49(a)(6)	
		Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)	
	7.	Check that the Certificate Holder has operations specifications for conducting supplemental ETOPS.	
		Sources: 119.49(b)(1)	
	8.	Check that the Certificate Holder has operations specifications for conducting supplemental operations for each kind of ETOPS authorized.	
		Sources: 119.49(b)(5)	
		Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)	
	9.	Check that the Certificate Holder has operations specifications for conducting supplemental operations that grants authorization for ETOPS routes.	
		Sources: 119.49(b)(6)	
		Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)	
	10.	Check that the Certificate Holder has operations specifications for conducting supplemental operations that grants authorization for ETOPS areas.	
		Sources: 119.49(b)(6)	
	11.	Check that the Certificate Holder has operations specifications for conducting supplemental operations that specify limitations for ETOPS routes.	
		Sources: 119.49(b)(6)	
	12.	Check that the Certificate Holder has operations specifications for conducting supplemental operations specifying limitations for ETOPS areas.	
		Sources: 119.49(b)(6)	
1.2.	specific specific	ertificate holder's manual includes excerpts from its operations cations, are the excerpts clearly identified as part of the operations cations? 119.43(b)(1); B.042; C.055; D.086	☐ Yes ☐ No, Explain ☐ Not Applicable
1.3.	Does th	ne certificate holder's manual require compliance with Operations	Yes
	•	cations, paragraph B042, C055, D086? 119.43(b)(2); B.042; C.055; D.086	☐ No, Explain
1.4.	engage Specific	ne certificate holder's manual contain a method for keeping all persons and in its operations informed of the provisions of Operations cations, paragraph B042, C055, D086? 119.43(c); B.042; C.055; D.086	☐ Yes ☐ No, Explain
1.5.	contain	ne certificate holder's ETOPS program comply with the guidance ed in FAA Order 8400.10?	☐ Yes ☐ No, Explain
		d Design JTIs:	
	1.	Check that the Part 121 Certificate Holder has an evaluation for Extended Range Operations with Two-Engine Airplanes (ETOPS), with	

maximum diversion times in excess of 75 minutes.

Sources: B.042a; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.9(OP)

- Check that the Part 121 Certificate Holder has approval for Extended Range Operations with Two-Engine Airplanes (ETOPS), with maximum diversion times in excess of 75 minutes.
 - Sources: B.042a; 8400-10, Volume 3, Chapter 1, Section 4, Part B
- 3. Check that the Part 121 Certificate Holder has approval for all ER-OPS with maximum diversion times in excess of 75 minutes, when the airplane/engine combination to be used is type design approved for the extended range operation proposed.
 - Sources: B.042a(1); 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.9(OP)
- 4. Check that the Part 121 Certificate Holder has approval for all ER-OPS with maximum diversion times in excess of 75 minutes, when the ER-OPS flight operation programs meets or exceeds AC 120-42 criteria. Sources: B.042a(2); 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)
- 5. Check that the Part 121 Certificate Holder has approval and Regional concurrence, for all ER-OPS with maximum diversion times in excess of 75 minutes.
 - Sources: B.042a(3); 8400-10, Volume 3, Chapter 1, Section 4, Part B
- 6. Check that the Part 121 Certificate Holder has an evaluation for extended range operations with maximum diversion times of 75 minutes or less.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)
- 7. Check that the Part 121 Certificate Holder has approval for extended range operations with maximum diversion times of 75 minutes or less. *Sources:* b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B *Interfaces:* 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)
- 8. Check that the Part 121 Certificate Holder has airplanes whose design must be reviewed to identify any special equipment necessary to safely conduct ER-OPS of 75 minutes or less.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP)
- Check that the Part 121 Certificate Holder has airplanes whose design must be reviewed to identify any special requirements necessary to safely conduct ER-OPS of 75 minutes or less.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.9(OP)
- 10. Check that the Part 121 Certificate Holder has approval, in accordance with AC 120-42, ETOPS for ER-OPS of 75 minutes or less.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)
- 11. Check that the Part 121 Certificate Holder has approval on a case-by-case basis for operations in the Western Pacific.

- Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)
- 12. Check that the Part 121 Certificate Holder has approval on a case-bycase basis for operations in the Western Pacific considering the performance of the airplane to be used.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)
- 13. Check that the Part 121 Certificate Holder has approval on a case-bycase basis for operations in the Western Pacific considering the character of the terrain.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)
- 14. Check that the Part 121 Certificate Holder has approval on a case-bycase basis for operations in the Western Pacific considering the performance of the airplane to be used.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 3.1.9(OP)
- 15. Check that the Part 121 Certificate Holder has approval on a case-bycase basis for operations in the Western Pacific considering the capabilities of the alternate airports being used.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 5.1.6(OP)
- 16. Check that the Part 121 Certificate Holder has approval on a case-bycase basis for operations in the Western Pacific considering the special provision for this area in the operations specifications.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 5.1.6(OP)
- 17. Check that the Part 121 Certificate Holder has approval on a case-by-case basis for operations in the Caribbean Sea.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 5.1.6(OP)
- 18. Check that the Part 121 Certificate Holder has approval on a case-bycase basis for operations in the Caribbean Sea considering the reliability of the propulsion system.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP)
- 19. Check that the Part 121 Certificate Holder has approval on a case-bycase basis for operations in the Caribbean Sea considering the character of the terrain.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 3.2.1(OP); 5.1.6(OP); 5.1.7(OP)
- 20. Check that the Part 121 Certificate Holder has approval on a case-bycase basis for operations in the Caribbean Sea considering the performance of the airplane to be used.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 3.1.9(OP)
- 21. Check that the Part 121 Certificate Holder has approval on a case-bycase basis for operations in the Caribbean Sea considering the

capabilities of the alternate airports being used.

Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 5.1.6(OP)

- 22. Check that the Part 121 Certificate Holder has approval on a case-bycase basis for operations in the Caribbean Sea considering the special provision for this area in the operations specifications.
 - Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)
- 23. Check that the Part 121 Certificate Holder has operations specifications approval for ER-OPS with a diversion time of 75 minutes or less.

 Sources: b.042b; 8400-10, Volume 3, Chapter 1, Section 4, Part B

 Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)
- 24. Check that the Part 121 Certificate Holder has a general ER-OPS authorization in the operations specifications for operations in the Western Atlantic.

Sources: B.042c; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 5.1.6(OP); 5.1.7(OP)

- 25. Check that the Part 121 Certificate Holder has a general ER-OPS authorization in the operations specifications for operations in the Caribbean Sea.
 - Sources: B.042c; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 5.1.6(OP); 5.1.7(OP)
- 26. Check that the Part 121 Certificate Holder has a general ER-OPS authorization in the operations specifications.

Sources: B.042d; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 5.1.6(OP); 5.1.7(OP)

- Check that the Part 121 Certificate Holder has enroute alternate airports that have been specified in the operations specifications.
 Sources: B.042e; 8400-10, Volume 3, Chapter 1, Section 4, Part B
 - Interfaces: 3.2.1(OP); 5.1.2(AW); 5.1.6(OP)
- 28. Check that the Part 121 Certificate Holder has enroute alternate airports that meet the enroute alternate criteria in AC-120-42 for use in ER-OPS operations.

Sources: B.042e; 8400-10, Volume 3, Chapter 1, Section 4, Part B *Interfaces:* 3.2.1(OP); 5.1.2(AW); 5.1.6(OP)

- 29. Check that the Part 121 Certificate Holder has authorization to conduct special ER-OPS in the Western Atlantic using a maximum diversion time of 75 minutes or less.
 - Sources: B.042f; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)
- 30. Check that the Part 121 Certificate Holder has ER-OPS operations that are approved for the Western Pacific and are listed in the operations specifications by make and any special equipment.

Sources: B.042f; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP)

31. Check that the Part 121 Certificate Holder has ER-OPS operations that are approved for the Western Pacific and are listed in the operations

specifications by model and any special equipment.

Sources: B.042f; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP)

32. Check that the Part 121 Certificate Holder has ER-OPS operations that are approved for the Western Pacific and are listed in the operations specifications by make and any special limitations.

Sources: B.042f; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP)

33. Check that the Part 121 Certificate Holder has ER-OPS operations that are approved for the Western Pacific and are listed in the operations specifications by model and any special limitations.

Sources: B.042f; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP)

34. Check that the Part 121 Certificate Holder has authorization to conduct special ER-OPS in the Caribbean Sea using a maximum diversion time of 75 minutes or less.

Sources: B.042f; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)

35. Check that the Part 121 Certificate Holder has ER-OPS operations that are approved for the Caribbean Sea and are listed in the operations specifications by make and any special equipment.

Sources: B.042f; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 5.1.6(OP); 5.1.7(OP)

36. Check that the Part 121 Certificate Holder has ER-OPS operations that are approved for the Caribbean Sea and are listed in the operations specifications by model and any special equipment.

Sources: B.042f; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 5.1.6(OP); 5.1.7(OP)

37. Check that the Part 121 Certificate Holder has ER-OPS operations that are approved for the Caribbean Sea and are listed in the operations specifications by make and any special limitations.

Sources: B.042f; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 5.1.6(OP); 5.1.7(OP)

38. Check that the Part 121 Certificate Holder has ER-OPS operations that are approved for the Caribbean Sea and are listed in the operations specifications by model and any special limitations.

Sources: B.042f; 8400-10, Volume 3, Chapter 1, Section 4, Part B Interfaces: 5.1.6(OP); 5.1.7(OP)

39. Check that the Part 121 Certificate Holder has been issued operations specifications that involve operations in the Central East Pacific (CEP) airspace.

Sources: B.042g; 8400-10, Volume 3, Chapter 1, Section 4, Part B

40. Check that the Part 121 Certificate Holder has been issued operations specifications that involve operations in the North Pacific (NOPAC) airspace.

Sources: B.042g; 8400-10, Volume 3, Chapter 1, Section 4, Part B

41. Check that the Part 121 Certificate Holder has operations specifications that involves operations in the North Atlantic Minimum Navigation Performance Specifications (NAT/MNPS) airspace.

		Sources: B.042g; 8400-10, Volume 3, Chapter 1, Section 4, Part B	
		Interfaces: 5.1.6(OP); 5.1.7(OP)	
	42.	Check that the Part 121 Certificate Holder has operations specifications that involve operations in the areas of magnetic unreliability.	
		Sources: B.042g; 8400-10, Volume 3, Chapter 1, Section 4, Part B	
		Interfaces: 5.1.6(OP); 5.1.7(OP)	
	43.	Check that the Part 121 Certificate Holder has operations specifications if the operator is authorized to use fuel reserves in ER-OPS.	
		Sources: B.042g; 8400-10, Volume 3, Chapter 1, Section 4, Part B	
		Interfaces: 3.2.2(OP)	
	44.	Check that the Part 121 Certificate Holder has operations specifications if the operation involves transatlantic flight in the North Atlantic.	
		Sources: B.042g; 8400-10, Volume 3, Chapter 1, Section 4, Part B	
		Interfaces: 5.1.6(OP); 5.1.7(OP)	
	45.	Check that the Part 121 Certificate Holder has been issued operations specifications B041 if the operation involves transatlantic flight in the North Atlantic.	
		Sources: B.042g; 8400-10, Volume 3, Chapter 1, Section 4, Part B	
		Interfaces: 5.1.6(OP); 5.1.7(OP)	
	46.	Check that the Part 121 Certificate Holder has been issued operations specifications C055 that includes Extended Range Operations (EROPS).	
		Sources: C.055; 8400-10, Volume 3, Chapter 3 Section 5, Part B	
		Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)	
	47.	Check that the Part 121 Certificate Holder has ETOPS operations within the former Soviet Union.	
		Sources: 8400-10, Vol. 4, Chapter 1, Section 5, 223	
		Interfaces: 5.1.6(OP); 5.1.7(OP)	
1.6.	Does th	ne certificate holder's ETOPS program comply with the guidance	Yes
		ed in Advisory Circular 120-42A?	☐ No, Explain
	Related	d Design JTIs:	
	1.	Check that the Part 121 Certificate Holder has extended range operations that contain a point further than one hour flying time at the approved one-engine inoperative cruise speed (under standard conditions in still air) from an adequate airport.	
		Sources: AC-120-42a, 4(e)	
		Interfaces: 5.1.6(OP); 5.1.7(OP)	
	2.	Check that the Part 121 Certificate Holder has extended range operations that has an outbound entry point which is one hour flying time at the approved one-engine inoperative cruise speed (under standard conditions in still air) from an adequate airport.	
		Sources: AC-120-42a, 4(f)	
	2	Interfaces: 5.1.6(OP); 5.1.7(OP) Check that the Part 121 Cartificate Holder has an evaluation considering	
	3.	Check that the Part 121 Certificate Holder has an evaluation considering the continuing operational concepts outlined in paragraph 10 of AC-120-42a	
		Sources: AC-120-42a, 5	
	4.	Check that the Part 121 Certificate Holder has ETOPS operations that	

are not limited to over water operations.

Sources: AC-120-42a, 5c(1)

Interfaces: 5.1.6(OP); 5.1.7(OP)

5. Check that the Part 121 Certificate Holder has additional restrictions imposed on their ETOPS operations.

Sources: AC-120-42a, 5c(2)

Interfaces: 5.1.6(OP); 5.1.7(OP)

6. Check that the Part 121 Certificate Holder has deviations granted to operate their ETOPS operations in excess of the basic requirements.

Sources: AC-120-42a, 5c(2)

Interfaces: 5.1.6(OP); 5.1.7(OP)

7. Check that the Part 121 Certificate Holder has airports that are adequate for the airplane used.

Sources: AC-120-42a, 5c(3)

Interfaces: 5.1.6(OP)

8. Check that the Part 121 Certificate Holder has a deviation from the required time restriction.

Sources: AC-120-42a, 5c(4)

Interfaces: 5.1.6(OP); 5.1.7(OP)

 Check that the Part 121 Certificate Holder has made an assessment to ensure that exceptional piloting skills are not required during its extended range operations.

Sources: AC-120-42a, 5e

Interfaces: 3.1.3(OP); 4.2.3(OP); 4.2.9(OP)

 Check that the Part 121 Certificate Holder has made an assessment to ensure that exceptional crew coordination are not required during its extended range operations.

Sources: AC-120-42a, 5e

11. Check that the Part 121 Certificate Holder has trained its personnel to achieve competence in extended range operations.

Sources: AC-120-42a, f(3)

Interfaces: 4.2.5(OP); 4.2.7(OP); 4.3.1(OP); 4.3.2(OP)

12. Check that the Part 121 Certificate Holder has authorization in their operations specifications for extended range operations within an area where the diversion time at any point along the proposed route of flight to an adequate airport is 75 minutes at the approved one-engine cruise speed (under standard conditions in still air).

Sources: AC 120-42a, 10 f(1)(i)

Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)

13. Check that the Part 121 Certificate Holder has authorization in their operations specifications for extended range operations within an area where the diversion time at any point along the proposed route of flight to an adequate airport is 120 minutes at the approved one-engine cruise speed (under standard conditions in still air).

Sources: AC 120-42a, 10 f(1)(i)

Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)

14. Check that the Part 121 Certificate Holder has authorization in their operations specifications for extended range operations within an area where the diversion time at any point along the proposed route of flight

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to an adequate airport is 180 minutes at the approved one-engine cruise speed (under standard conditions in still air).

Sources: AC 120-42a, 10 f(1)(i)

Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)

Check that the Part 121 Certificate Holder has approval in the operations specifications for the authorized areas used in ETOPS.

Sources: AC 120-42a, 10 f(1)(ii)
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Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)

16. Check that the Part 121 Certificate Holder does not have a policy that would prejudice the final authority of the pilot in command.

Sources: AC 120-42a, 10 f(3)

15.

Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)

- 17. Check that the Part 121 Certificate Holder does not have a policy that would prejudice the final responsibility of the pilot in command.

 Sources: AC 120-42a, 10 f(3)
- 18. Check that the Part 121 Certificate Holder has, in its operations specifications, provisions covering the minimum altitudes to be flown along planned routes.

Sources: AC 120-42a, 10 g(2)(iii)

Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)

19. Check that the Part 121 Certificate Holder has, in its operations specifications, provisions covering the minimum altitudes to be flown along diversionary routes.

Sources: AC 120-42a, 10 g(2)(iii)

Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)

20. Check that the Part 121 Certificate Holder has, in its operations specifications, provisions that preclude operations in excess of the maximum diversion time at any point in route to a suitable airport for landing.

Sources: AC 120-42a, 10 g(2)(iv)

Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)

21. Check that the Part 121 Certificate Holder has, in its operations specifications, provisions covering airports authorized for use, including alternates, and associated instrument approaches and operating minima.

Sources: AC 120-42a, 10 g(2)(v)

Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)

22. Check that the Part 121 Certificate Holder has, in its operations specifications, provisions covering the identification of those airplanes designated for extended range operation by make and model as well as serial and registration numbers.

Sources: AC 120-42a, 10 g(2)(vii)

Interfaces: 1.1.2(AW); 1.1.2(OP); 3.1.3(OP); 3.1.4(OP); 3.1.9(OP); 3.2.1(OP); 4.2.9(OP); 4.3.2(OP); 5.1.2(AW); 5.1.6(OP); 5.1.7(OP)

	23.	Check that the Part 121 Certificate Holder has a document showing that a FAA-witnessed validation flight has been accomplished using the specified airframe-engine combination.	
		Sources: AC 120-42a, 10 h	
	24.	Check that the Part 121 Certificate Holder utilizes AC 120-42a, Appendix 3 for the definitions dealing with suitable enroute alternate airports.	
		Sources: AC 120-42A Appendix 3	
	25.	Check that the Part 121 Certificate Holder utilizes AC 120-42a, Appendix 5 for the definitions dealing with ETOPS operational program criteria.	
		Sources: AC 120-42a Appendix 5	
2.		ne certificate holder's manual contain general policies for the ETOPS in that comply with the SRRs?	☐ Yes ☐ No, Explain
	119.43 121.13	119.33(a)(1); 119.33(a)(2); 119.33(a)(3); 119.43(b); 119.43(b)(1); (b)(2); 119.49(a); 119.49(b); 119.5(f)(1); 119.5(f)(2); 121.135(b)(1); 5(b)(19); 121.135(b)(21); 121.135(b)(5); 121.135(b)(6); 121.135(b)(7); 1(a); 121.383(a)(1); 121.383(a)(2); 121.383(a)(3)	
3.	Regula inspect	ne certificate holder's manual reference the appropriate Federal Aviation tions listed in the Supplemental Information section of this safety attribute ion (SAI)? 121.135(b)(3)	Yes No, Explain
4.	person	ne certificate holder's manual contain the duties and responsibilities for nel who will accomplish the ETOPS program? 121.135(b)(2)	☐ Yes ☐ No, Explain
5.	person	ne certificate holder's manual include instructions and information for neel to meet the requirements of the ETOPS program? 121.135(a)(1)	☐ Yes ☐ No, Explain

SAI SECTION 1 - PROCEDURES ATTRIBUTE Drop-Down Menu

- 1. No procedures, policy, instructions or information specified.
- 2. Procedures or instructions and information do not identify (who, what, when, where, how).
- 3. Procedures, policy or instructions and information do not comply with CFR.
- 4. Procedures, policy or instructions and information do not comply with FAA policy and guidance.
- 5. Procedures, policy or instructions and information do not comply with other documentation (e.g., manufacturer's data, Jeppesen's Charts, etc.).
- 6. Procedures, policy or instructions and information unclear or incomplete.
- 7. Documentation quality (e.g., unreadable or illegible).
- 8. Procedures, policy or instructions and information inconsistent across Certificate Holder manuals (FOM Flight Operations Manual to GMM General Maintenance Manual, etc.).
- 9. Procedures, policy or instructions and information inconsistent across media (e.g., paper, microfiche, electronic).
- 10. Resource requirements incomplete (personnel, facilities, equipment, technical data).
- 11. Other.

SAI SECTION 2 - CONTROLS ATTRIBUTE

Objective: Controls are checks and restraints designed into a process to ensure a desired result. The questions in this section of the DCT are designed to assist the inspector in determining if checks and restraints are designed into the process to ensure the desired result is achieved. Controls should be written into the manual system to ensure that the most important manual policies, procedures or instructions and information will be followed.

Controls may be in the form of administrative controls, which are secondary or supplemental written procedures. Like written procedures, administrative controls also need to provide answers to questions regarding who, what, when, where, and how. Controls may also be in the form of engineered controls such as automated features or mechanical actions or devices (i.e., safety devices, warning devices, etc.).

Juoi	as automated reactives of mechanical actions of devices (i.e., surety devices, warning devices, etc.).		
Tasi	Tasks		
	To meet this objective, the inspector must accomplish the following tasks:		
1.	Review the control questions below.		
2.	Review the certificate holder's policies, procedures, instructions, and information to gain an understanding of the controls that it has documented.		

Que	Questions			
	To meet this objective, the inspector must answer the following questions:			
1.	Are the following controls built into the Extended Range Operations with Two- Engine Airplanes (ETOPS) program:			
1.1.	Is there a control in place to ensure that the en route alternate criteria are met for ETOPS?	☐ Yes ☐ No, Explain		
1.2.	Is there a control in place to ensure that crewmembers are qualified in the certificate holder's ETOPS operations?	☐ Yes ☐ No, Explain		
1.3.	Is there a control in place to ensure that all airports used in ETOPS have safe conditions and adequate ground equipment?	☐ Yes ☐ No, Explain		
1.4.	Is there a control in place to ensure that only airplanes listed in operations specifications D086 be used in ETOPS operations?	Yes No, Explain		
2.	Does the certificate holder have a documented method for assessing the impact of any changes made to the controls in the ETOPS program?	☐ Yes ☐ No, Explain		

SAI SECTION 2 - CONTROLS ATTRIBUTE			
	Drop-Down Menu		
1.	No controls specified.		
2.	Documentation for the controls do not identify (who, what, when, where, how).		
3.	Controls incomplete.		
4.	Controls could be circumvented.		
5.	Controls could be unenforceable.		
6.	Resource requirements incomplete (personnel, facilities, equipment, technical data).		
7.	Other.		

SAI SECTION 3 - PROCESS MEASUREMENT ATTRIBUTE

Objective: Process measurements are used by the certificate holder to measure and to assess its processes, to identify and to correct problems or potential problems, and to make improvements to the processes. The questions in this section of the DCT are designed to assist the inspector in determining if the certificate holder measures or assesses information to identify, analyze, and document potential problems with the process. Process measurements are a certificate holder's internal evaluation or auditing of the most important policies, procedures, or instructions and information associated with an element.

To prevent the duplication of work, process measurements are most commonly addressed through a combination of auditing features contained in both the certificate holder's safety program/internal evaluation program (for operations and cabin safety related issues) and the auditing function of the Continuous Analysis and Surveillance System (for airworthiness or maintenance/inspection related issues). The director of safety and the quality assurance department often work together to accomplish this function for the certificate holder. This approach requires amendment of the safety program/internal evaluation program audit forms or checklists and the Continuous Analysis and Surveillance System audit forms or checklists to include the specific process measurements for each element.

Tasks		
	To meet this objective, the inspector must accomplish the following tasks:	
1.	Review the process measurement questions below.	
2.	Review the certificate holder's policies, procedures, instructions, and information to gain an understanding of the process measurements that it has documented.	

Questions		
	To meet this objective, the inspector must answer the following questions:	
1.	Does the certificate holder's Extended Range Operations with Two-Engine Airplanes (ETOPS) program include the following process measurements:	
1.1.	Process measurements that would reveal if en route alternate criteria were not met for ETOPS?	☐ Yes ☐ No, Explain
1.2.	Process measurements that would reveal if personnel were not properly qualified in ETOPS operations?	☐ Yes ☐ No, Explain
1.3.	Process measurements that would reveal if all airports used in ETOPS did not have safe conditions and adequate ground equipment?	☐ Yes ☐ No, Explain
1.4.	Process measurements that would reveal if an airplane not listed in operations specifications D086 was used in ETOPS operations?	☐ Yes ☐ No, Explain
2.	Is there a process measurement or process measurements that would reveal if the certificate holder's policy, procedures, instructions, and information contained in its manual were not followed?	Yes No, Explain
3.	Does the certificate holder document its process measurement results?	☐ Yes ☐ No, Explain
4.	Does the certificate holder's manual provide for the use of process measurements results to improve its programs?	☐ Yes ☐ No, Explain
5.	Does the organization that conducts the process measurements have direct access to the person with responsibility for the ETOPS program?	☐ Yes ☐ No, Explain

SAI SECTION 3 - PROCESS MEASUREMENT ATTRIBUTE Drop-Down Menu

- 1. No process measurements specified.
- 2. Documentation for the process measurements does not identify (who, what, when, where, how).
- 3. Inability to identify negative findings.
- 4. No provisions for implementing corrective actions.
- 5. Ineffective follow-up to determine effectiveness of corrective actions.
- 6. Resources requirements (personnel, facilities, equipment, technical data).
- 7. Other.

SAI SECTION 4 - INTERFACES ATTRIBUTE

Objective: Interfaces are used by the certificate holder to identify and to manage the interactions between processes. The questions in this section of the DCT are designed to assist the inspector in determining whether or not interactions between the policies, procedures, or instructions and information associated with other independent processes within the certificate holder's organization are documented. Written policies, procedures, or instructions and information that are interrelated and located in different manuals within the certificate holder's manual system must be consistent and complement each other. For the interfaces to be effectively managed, it is not only important to identify what the interfaces are, but it is imperative to document the specific location of the interfaces within the certificate holder's manual system.

Syste	System.		
Tasl	Tasks		
	To meet this objective, the inspector must accomplish the following tasks:		
1.	Review the interfaces associated with the Extended Range Operations with Two-Engine Airplanes (ETOPS) program that have been identified along with the individual questions in section 1, Procedures, of this DCT.		
2.	Review the certificate holder's policies, procedures, instructions, and information to gain an understanding of the interfaces that it has documented.		

Questions			
	To meet this objective, the inspector must answer the following questions: Note: The design job task items (JTIs) displayed with the questions in section 1, Procedures, of this DCT identify potential interfaces (by element number) for this element.		
1.	Does the certificate holder's manual properly address the interfaces that are identified along with the questions in section 1, Procedures of this DCT?	Yes No, Explain	
2.	Does the certificate holder's manual document a method for assessing the impact of any changes to the associated interfaces within the ETOPS program?	Yes No, Explain	

SAI SECTION 4 - INTERFACES ATTRIBUTE Drop-Down Menu

- 1. No interfaces specified.
- 2. The following interfaces not identified within the Certificate Holder's manual system:
- 3. Interfaces listed are inaccurate.
- 4. Specific location of interfaces not identified within the manual system.
- 5. Other

SAI SECTION 5 - MANAGEMENT RESPONSIBILITY & AUTHORITY ATTRIBUTES

Objective: The questions in this section address the responsibility and authority of the process. They are designed to assist the inspector in determining if there is a clearly identifiable, qualified, and knowledgeable person who is responsible for the process, is answerable for the quality of the process, and has the authority to establish and modify the process. (The person with the authority may or may not be the person with the responsibility.)

be the person with the responsibility.)		
Tasks		
	To meet this objective, the inspector must accomplish the following tasks:	
1.	Identify the person who has overall responsibility for the Extended Range Operations with Two- Engine Airplanes (ETOPS) program.	
2.	Identify the person who has overall authority for the ETOPS program.	
3.	Review the duties and responsibilities of the person(s), documented in the certificate holder's manual.	
4.	Review the appropriate organizational chart.	
	·	

Questions			
	To meet this objective, the inspector must answer the following questions:		
1.	Does the certificate holder's manual clearly identify who is responsible for the quality of the ETOPS program?	Yes No, Explain Name/Title:	
2.	Does the certificate holder's manual clearly identify who has authority to establish and modify the policies, procedures, instructions and information for the ETOPS program?	Yes No, Explain Name/Title:	
3.	Does the certificate holder's manual include the duties and responsibilities of those who manage the work required by the ETOPS program? SRRs: 121.135(b)(2)	Yes No, Explain	
4.	Does the certificate holder's manual include instructions and information for those who manage the work required by the ETOPS program? SRRs: 121.135(a)(1)	Yes No, Explain	
5.	Does the certificate holder's manual clearly and completely document the responsibility for this position?	☐ Yes ☐ No, Explain	
6.	Does the certificate holder's manual clearly and completely document the authority for this position?	☐ Yes ☐ No, Explain	
7.	Does the certificate holder's manual clearly and completely document its qualification standards for the person having responsibility for the ETOPS program?	Yes No, Explain	
8.	Does the certificate holder's manual clearly and completely document its qualification standards for the person having authority to establish and modify the certificate holder's policies, procedures, instructions, and information for the ETOPS program?	☐ Yes ☐ No, Explain	
9.	Does the certificate holder's manual clearly and completely document the procedures for delegation of authority for the ETOPS program?	☐ Yes	

SAI SECTION 5 - MANAGEMENT RESPONSIBILITY & AUTHORITY ATTRIBUTES Drop-Down Menu

- 1. Not documented.
- 2. Documentation unclear.
- 3. Documentation incomplete.
- 4. Other.